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| TRANSMITTAL FORM (to be used for all correspondence after initial filing) | Application Number | 10/642,677 | |
| | Filing Date | Aug. 19, 2003 | |
| | First Named Inventor | Videen | |
| | Art Unit | | |
| | Examiner Name | | |
| Total Number of Pages in This Submission | 5 | Attorney Docket Number | ARL 03-06 |

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| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT | |
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| Firm or Individual name | William Randolph (U.S. Army Materiel Command) |
| Signature | William Randolph |
| Date | Nov. 12, 2003 |

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of

Gorden Videen

Serial No.: 10/642,677

Filed: Aug. 19, 2003

Confirmation No.: To Be Assigned

Group Art Unit: To Be Assigned

Examiner: To Be Assigned

Docket No.: ARL 03-06

For: Systems and Methods for Analyzing Particle Systems of Surface Facets Using Polarized Scattered Light

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This information disclosure statement is filed in accordance with 37 C.F.R. §§ 1.56, 1.97, and 1.98, and specifically:

- ☒ under 37 CFR 1.97(b), or
(within Three months of filing national application; or date of entry of international application; or before
mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:
☐ Statement Under 37 C.F.R. 1.97(e), or
☐ a \$180.00 fee under 37 CFR 1.17(p), or
(After the CFR 1.97(b) time period, but before the final office action or notice of allowance, whichever
occurs first)
- ☐ under 37 CFR 1.97(d) together with a:
☐ Statement under 37 CFR 1.97(e), and
☐ a \$180.00 petition fee set forth in 37 CFR 1.17(p).
(Filed after final office action or notice of allowance, whichever occurs first, but before payment of the
issue fee)

Enclosed is a check in the amount of \$. Please charge \$ to deposit account . At any time during the
pendency of this application, please charge any fees required to Deposit Account pursuant to 37 CFR 1.25. The
Commissioner is hereby requested to credit any overpayment to Deposit Account No. .

☒ Applicant(s) submit herewith *Form PTO 1449A - Information Disclosure Statement by Applicant* together with copies of
patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may or may not
be material to the examination of this application and for which there may be a duty to disclose in accordance with 37
CFR 1.56. As required by 37 C.F.R. §1.98(a), a legible copy of each document is provided.

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and
other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in
37 CFR 1.56(c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent
is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English
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The following rights are reserved by the Applicant(s): the right to establish the patentability of the claimed invention
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This statement should not be construed as a representation that an exhaustive search has been made, or that information more material to the examination of the present application does not exist. Any statements or identifications regarding the relevance of any portion(s) of cited references should not be construed as a representation that the most relevant portion(s) have been identified, and the absence of such statements or identifications should not be construed as representations that there are no relevant portion(s). The Examiner is specifically requested not to rely solely on the materials submitted herewith. The Examiner is requested to conduct an independent and thorough review of the documents, and to form independent opinions as to their significance.

It is requested that the information disclosed herein be made of record in this application and that the Examiner initial and return a copy of the enclosed PTO-1449 to indicate the documents have been considered.

Respectfully Submitted,

By:

William Randolph
William Randolph
Patent Attorney
Reg. No. 28,986

Nov. 12, 2003

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Attorney Docket No.

ARL 03-06

Serial No.

10/642,677

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Applicant

Gorden Videen

Filing Date

Group

To be assigned

U.S. PATENT DOCUMENTS

| Examiner Initials | Item | Document Number | Date | Name | Class | Subclass | Filing Date If Appropriate |
|-------------------|------|-----------------|----------|-----------------|-------|----------|----------------------------|
| | A | 5,028,119 | 7/2/91 | Hegg, et al. | 350 | 174 | 4/7/89 |
| | B | 5,060,063 | 10/22/91 | Gary T. Freeman | 358 | 101 | 7/30/90 |
| | C | 6,138,083 | 10/24/00 | Gorden Videen | 702 | 155 | 8/7/98 |
| | D | 6,163,408 | 12/19/00 | Joseph Larussa | 359 | 630 | 10/13/98 |
| | E | 6,239,873 | 5/29/01 | Gorden Videen | 356 | 369 | 11/13/00 |
| | F | 6,411,441 | 6/25/02 | Gorden Videen | 359 | 631 | 11/13/00 |
| | G | 6,414,797 | 7/2/02 | Gorden Videen | 359 | 631 | 11/13/00 |

FOREIGN PATENT DOCUMENTS

| | | Document Number | Date | Country | Class | Subclass | Translation |
|--|--|-----------------|------|---------|-------|----------|-------------|
| | | | | | | | Yes No |
| | | | | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

| | | |
|--|---|---|
| | H | Patent Application filed 11/6/00, assigned Serial No. 09/707,291 and entitled Wide-Angle Backscatter Probe Having a Rotatable Beamsplitter and Method of Measuring With Same |
| | I | Yu. G. Shkuratov, M.A. Kreslavsky, A.A. Ovcharenko, D.G. Stankevich, and E.S. Zubko; Opposition Effect from Clementine Data and Mechanisms of Backscatter; 1999; pp. 132-155 |
| | J | Vera K. Rosenbush, Viktor V. Avramchuk, and Aleksandr E. Rosenbush; Polarization Properties of the Galilean Satellites of Jupiter: Observations and Preliminary Analysis; September 20, 1977; pp. 402-414 |
| | K | Karri Muinonen; Coherent Backscattering by Solar System Dust Particles; 1993; pp 271-296 |
| | L | Yu. Shkuratov, A. Ovcharenko, and E. Zubko, O. Miloslavskaya, K. Muinonen, J. Piironen, R. Nelson, W. Smythe, V. Rosenbush, and P. Helfenstein; The Opposition Effect and Negative Polarization of Structural Analogs for Planetary Regoliths; 2002; pp 396-416 |
| | M | Michael I. Mishchenko; On the Nature of the Polarization Opposition Effect Exhibited by Saturn's Rings; The Astrophysical Journal; July 1, 1993; pp 351-361 |
| | N | M. I. Mishchenko; Polarization Effects in Weak Localization of Light: Calculation of the Copolarized and Depolarized Backscattering Enhancement Factors; Physical Review B; December 1991; pp 597-600 |
| | O | M. I. Mishchenko; Enhanced Backscattering of Polarized Light from Discrete Random Media: Calculations in Exactly the Backscattering Direction; J. Opt. Soc. Am. A/Vol. 9, No. 6/ June 1992; pp 978-982 |
| | P | M. I. Mishchenko, Jean-Marc Luck, and Theo M. Nieuwenhuizen; Full Angular Profile of the Coherent Polarization Opposition Effect; J. Opt. Soc. Am. A/Vol. 17, No. 5/May 2000; pp 888-891 |

* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

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INFORMATION DISCLOSURE CITATION

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Attorney Docket No.

ARL 03-06

Serial No.

10/642,677

Applicant

Gorden Videen

Filing Date

Group

To be assigned

U.S. PATENT DOCUMENTS

| Examiner Initials | Item | Document Number | Date | Name | Class | Subclass | Filing Date If Appropriate |
|-------------------|------|-----------------|---------|------------------|-------|----------|----------------------------|
| | Q | 6,124,928 | 9/26/00 | Slater | 356 | 317 | 3/6/98 |
| | R | 6,052,187 | 4/18/00 | Krishnan, et al. | 356 | 364 | 8/31/98 |
| | S | 4,770,529 | 9/13/88 | Levinson, et al. | 356 | 153 | 9/13/88 |
| | T | 6,097,488 | 8/1/00 | Grek, et al. | 356 | 364 | 8/1/00 |

FOREIGN PATENT DOCUMENTS

| | | Document Number | Date | Country | Class | Subclass | Translation | |
|--|--|-----------------|------|---------|-------|----------|-------------|----|
| | | | | | | | Yes | No |
| | | | | | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | | | | | |
|--|----|---|--|--|--|--|--|
| | U | Ismo V. Lindell, Ari H. Sihvolva, Karri O. Muinonen, and Peter W. Barber; Scattering By a Small Object Close to an Interface; J. Opt. Soc. Am. A/Vol. 8, No. 3/March 1991; pp. 472-476 | | | | | |
| | V | K. O. Muinonen; A.H. Sihvola; I.V. Lindell; and K.A. Lumme; Scattering by a Small Object Close to An Interface; J. Opt. Soc. Am. A/Vol.8, No.3/March 1991; pp 477-482 | | | | | |
| | W | Karri Muinonen; Coherent Backscattering by Absorbing and Scattering Media; Sixth Conference on Light Scattering by Nonspherical Particles; pp 223-226 | | | | | |
| | X | J.E. Geak and M. Geake; A Remote-Sensing Method for Sub-Wavelength Grains on Planetary Surfaces by Optical Polarimetry; Mon. Nat. R. astr. Soc. (1990) 46-55 | | | | | |
| | Y | Milo Wolff; Polarization of Light Reflected From Rough Planetary Surface; Applied Optics; June, 1975; pp 1395-1405 | | | | | |
| | Z | K. Muinonen, M Kokko, S. Pohjolainen; and P. Hakala; Proceedings of the Finnish Astronomical Society; Observatory and Astrophysics Laboratory, University of Helsinki; 1990; pp 12-15 | | | | | |
| | A1 | Nadia T. Zakharova and Michael I. Mishchenko; Scattering Properties of Needlelike and Platelike Ice Spheroids With Moderate Size Parameters; Applied Optics/Vol. 39, No. 27/ September 20, 2000; pp 5052-5057 | | | | | |
| | | | | | | | |
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